" INTERACTIVE TELEVISION BROADCAST USING CHARACTER BROADCAST SYSTEM"

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4. Applications

This system has a high degree of freedom and is considered to be applied to extensive fields according to intentions of broadcasting stations or program producers.

First, there is a form of an interactive information service program that is concluded in a television receiver. In this system, as shown in Fig. 3, a flow of interactive information is concluded between a broadcasting station and an interactive television receiver. For example, when a baseball game is broadcast, performances of batters and pitchers and a team record against an opponent are displayed but soon disappear in the current broadcasting. Various kinds of information including information on games in other baseball stadiums, and results of soccer games and Sumo matches and reports on the games and matches still in progress are sent, and are made available for display on screens whenever a viewer demands. It is also possible to contrive that variety should be given to a range of information provided to a viewer depending on broadcasting stations. In addition, as another example, when a kid gives the correct answer in response to an interactive question in a quiz show for kids, it is also possible to show messages such as "You guessed right. Congratulations" on a screen in graphic characters and pictures together with sounds to excite amusement at home.

What is possible as the next stage is a simple response system. As shown in Fig. 4, in this system, when a viewer makes a response to a questionnaire or a quiz from a broadcasting station using a telephone line connected to a television receiver, in response to this, the television receiver automatically makes a phone call to return to a server contents of an answer of each viewer. A television ID of the television receiver and a broadcasting program ID of a program that the viewer is watching are affixed to answer data, and response information

such as right or wrong is added to the data. This transmission of response information takes not more than one second unless a procedure for connection is troublesome or contents are too unique. That is, a telephone bill is held down from whichever part of Japan the viewer answers.

A response server adds up and processes the contents and transmits data to the broadcasting station or an organization designated by the broadcasting station. The broadcasting station can easily and accurately specify who gave information such as responses and correct answers of viewers participating in the questionnaire or the quiz according to the information to which television IDs of respective customers are affixed. Moreover, the broadcasting station can obtain participation of far more viewers compared with a program in which people were invited to orally participate by telephone in the past. Note that it is possible that a viewer response program includes not only a quiz show but also a program for receiving answers to a questionnaire such as a public opinion poll or an investigation of opinions. In such a program, privacy is protected by incorporating a logic that does not return a viewer ID to a broadcasting station or the like.

Moreover, a virtual channel service as shown in Fig. 5 is also possible. A viewer can call a server in which information is stored and access desired information when the viewer wishes to do so. The information may range widely from local contents such as town information and weather information to information for supplementing a broadcasting program. In any case, since the information is provided to viewers in general, the viewers would be reluctant to access the information if operation is complicated. In addition, it is desirable that an information provider should be able to provide information easily. If this system is developed into a system for communication among viewers who know IDs each other, it would be an interesting plan to create a simple electronic card service for anniversaries or the like.

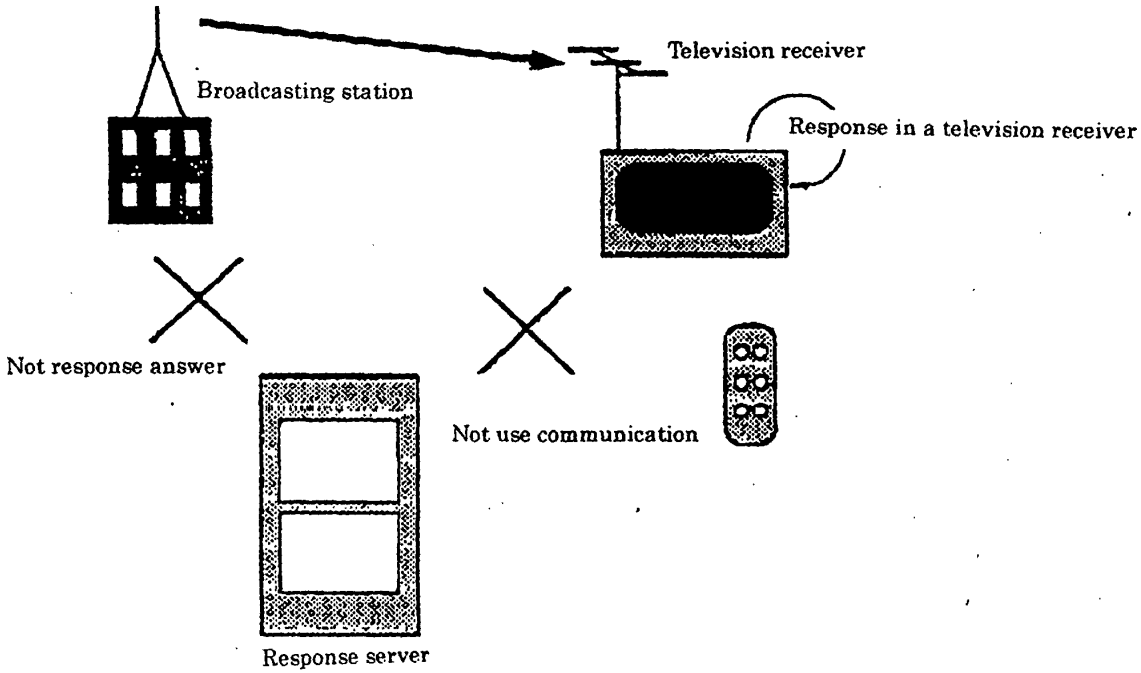

Fig 3 Broadcast form of one line

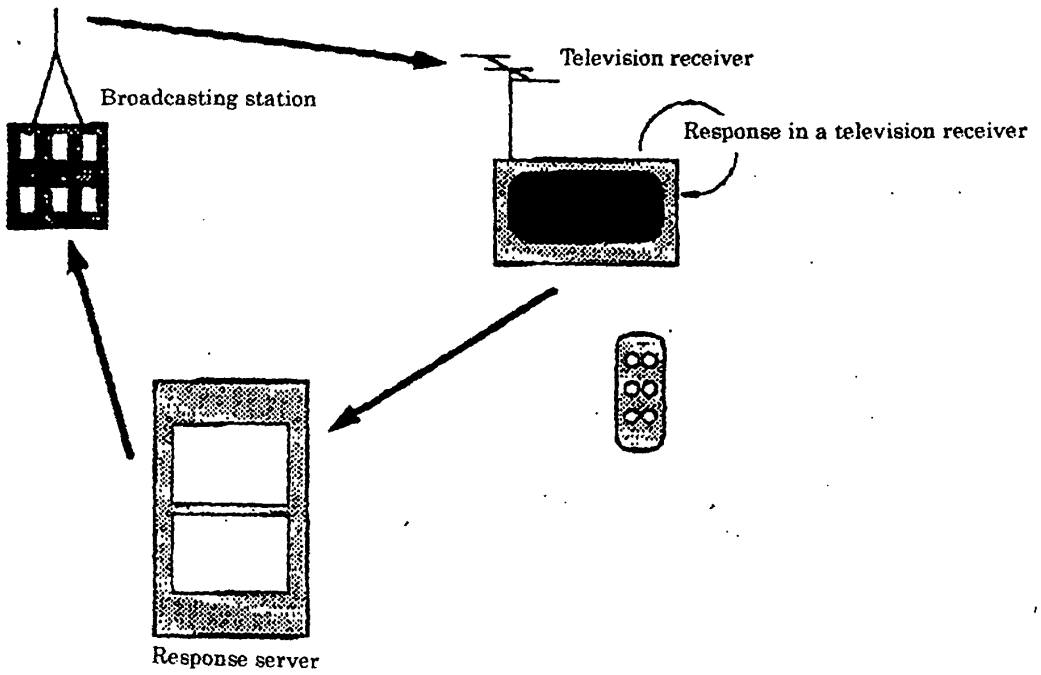

Fig.4

Block of character multi-broadcast form of a interactive television

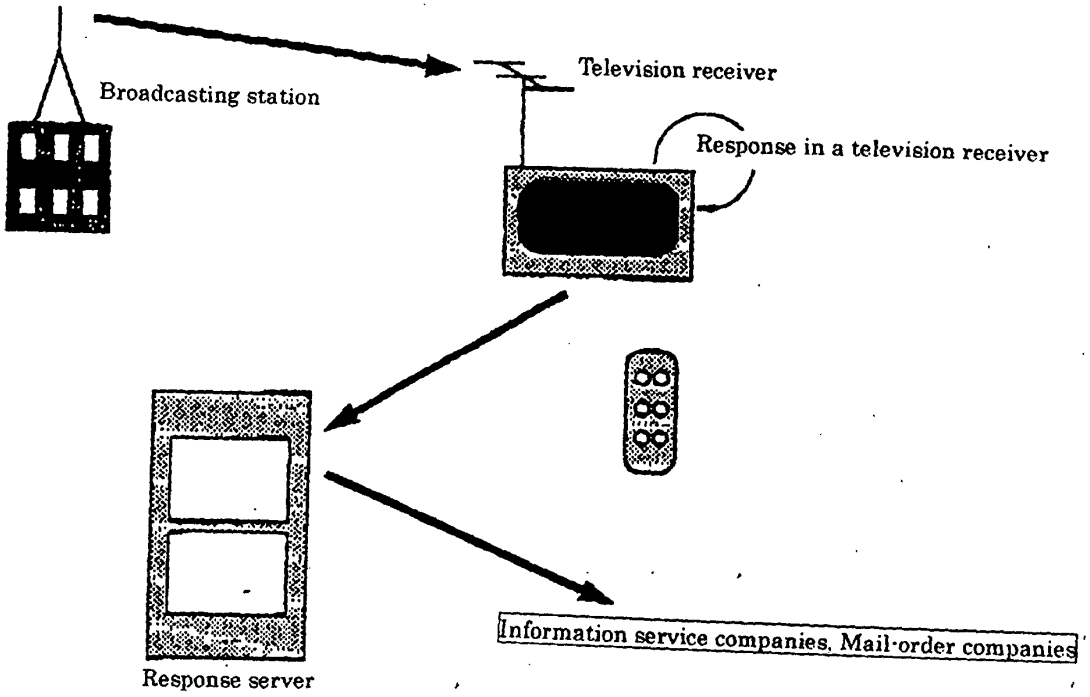

Fig.5 Virtual channel